



2 November 2023

Electricity Market Measures submissions
Ministry of Business, Innovation and Employment
PO Box 1473
Wellington 6140
New Zealand

Orion submission on Measures for Transition to an Expanded and Highly Renewable Electricity System

1. Orion New Zealand Limited (**Orion**) welcomes the opportunity to make a submission on *Measures for Transition to an Expanded and Highly Renewable Electricity System* which is part of the *Advancing New Zealand's energy transition* consultation package.

How we fit in

2. We own and operate the electricity distribution infrastructure in Central Canterbury, including Ōtautahi Christchurch. Our network is both rural and urban and extends over 8,000 square kilometres from the Waimakariri River in the north to the Rakaia River in the south; from the Canterbury coast to Arthur's Pass. We deliver electricity to more than 220,000 homes and businesses and are New Zealand's third largest Electricity Distribution Business (EDB).
3. Orion has a fully owned subsidiary, industry service provider Connetics, and together with Orion the two organisations make up the Orion Group. In 2019, Orion Group also established the Energy Academy.¹ The Energy Academy is working to bring the energy sector together to grow our talent pool.
4. Central Canterbury is a place of rapid growth and transformation, embracing change and innovation, with Ōtautahi Christchurch at the heart of this diverse and vibrant region. Electricity distribution has always been an essential service that underpins regional, community and economic wellbeing. Our service is vital to the wellbeing and livelihood of the people and businesses who live and operate here.

¹ <https://www.energyacademy.co.nz/>



Now, it also has a critical part to play in New Zealand's transition to a low carbon economy. Challenges and opportunities are arising from a combination of our community's willingness to adopt changing technologies, Aotearoa New Zealand's drive for a low-carbon future, and the impact of climate change.

5. In this context Orion's Group Purpose of "Powering a cleaner and brighter future with our community" is central to all we do. As Aotearoa New Zealand transitions to a low carbon economy, the energy sector has a critical part to play. Orion has established its purpose to be a vital player in that transition for our community and our region. We are focused on helping our community realise its dreams for a future that is new, better, and more sustainable over the long term.
6. To this end, our group strategy is as follows:



7. We want to drive prosperity for our region through balancing energy affordability, energy security and sustainability. Key focus areas for us include
- Facilitating decarbonisation and hosting capacity at lowest cost,
 - Investing to maintain a safe, reliable, resilient network at lowest total lifecycle cost, and
 - Being a force for good in the communities we serve.
8. Paragraph 5 of the Discussion Document highlights the aims of the paper being to identify gaps where further measures could be needed, reviewing sector transitions already underway, as well as measures to support the transition that are being developed or considered, and then identifying gaps where further or alternative measures could be considered or developed.
9. We have answered many of the questions in the template survey for the Discussion Document *Measures for Transition to an Expanded and Highly Renewable Electricity System* (see attached). We also wanted to provide some more information about our key concerns and these are set out below.

Key areas of concern

10. Our key areas of concern are:

- a. The necessity for a significant, urgent ramp up in investment by electricity distribution businesses to support the timely transition towards a 100% renewable, distributed and flexible electricity system; electricity demand growth due to population, urban intensification and electrification of transport and heat (in particular); and the mitigation of increasing physical climate risk to infrastructure and community energy resilience. The regulatory regime must support this ramp up in investment and the government must get the regulatory settings right.
- b. Take a whole of energy system approach and enable the market to function effectively so as to avoid policies and mechanisms which 'pick winners'. There must be support for innovation / learning by doing, and the development of market-based models and mechanisms which reflect whole of energy system costs and blended value / benefits to New Zealand and individual consumers. For example, the value of energy efficiency; flexibility value stack; value of decarbonisation and consumer / community energy resilience as well as incentivising the development and uptake of solutions which cost-effectively deliver such blended value. We note for example that this whole of system approach may mean distribution networks building more capacity to avoid curtailment of renewables which could be the right whole of system outcome but not the optimal outcome for EDBs.
- c. Adopt a dynamic, adaptive policy pathways approach, which acknowledges and reflects the inherent uncertainties in global, national and local energy transition pathways and enables innovation and an evolutionary approach to market mechanisms, not least fit for purpose distribution system operating models and pricing mechanisms as we move from a centralised, linear electricity system to a more distributed, localised energy system.
- d. Plan for and enable a skilled workforce. The scaling up of the decarbonised energy system is going to require "a significant expansion of skilled workers across the sector".²
- e. Encourage and enable a maturing approach to collaborative Local Area Energy Planning, in

² See the International Energy Agency's report New Zealand 2023 Energy Policy Review
Electricity Networks Aotearoa has also commissioned Allen + Clarke to undertake a study to further understand the workforce capability and capacity challenge for distribution, with the support of Transpower and EEA. We understand that findings from that study will be shared later this year See <https://www.ena.org.nz/assets/Annual-Report-2023-online-v2.pdf>

particular between local authorities / spatial planning partnerships, local electricity distribution businesses, and emergency management.

- f. Ensure critical enablers – in particular data, information and trusted advice - are accessible and affordable for those who need it (from market participants to EDBs to flexibility service providers and consumers) to enable timely, evidence-based decision making.
- g. Encourage, support and incentivise collaborative, open innovation between distribution businesses, and between parties across the energy value chain and adjacent sectors.
- h. Ensure the regulatory settings are in place to ensure a managed transition, which maintains security of supply and customer service levels as new mechanisms and models for demand side flexibility are developed and new types of participants enter the market.
- i. Where necessary consider off-market policy interventions to address energy hardship and the well signalled issue of increasing energy inequity, as lower income and vulnerable consumers face constraints in accessing the 'energy wallet' savings and other benefits of electric vehicles, low carbon technologies and active market participation.

11. Finally, achieving a renewable energy system is going to take collective action from everyone. We urge the government to make considered decisions (according to standard accountabilities and government policy processes) but also to act **quickly**. The energy system is already changing rapidly and we want to encourage innovation and foster creativity, and act on identified high impact, immediate opportunities.³

Concluding comments

12. Thank you again for the opportunity to provide this submission.

³ Inaction leads to costs - a recent example being the delays with reviewing and making decisions on the Electricity (Hazards from Trees) Regulations 2003. The Energia Report to Electricity Networks Aotearoa "Electricity Distribution Sector Cyclone Gabrielle Review" details that *"The largest cause of outages was out-of-zone tree damage to overhead lines. Out-of-zone trees grow outside of the zone where EDBs can control their trimming or removal (refer to Section 7.8 for additional details). Out-of-zone tree outages interrupted supply to 68,000 customers at the cyclone's peak."*³ For many years, the sector has been calling for a review of these Regulations. Only following the Cyclone has a review commenced.

13. The contact for this submission is Vivienne Wilson, Policy Lead, vivienne.wilson@oriongroup.co.nz, ph 027 202 2718.

Yours sincerely

A handwritten signature in blue ink that reads "Sam Elder". The signature is written in a cursive style with a horizontal line underneath the name.

Sam Elder
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